

EXHIBIT G

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ALL DOMESTIC DEFENDANTS' COUNSEL

VIA EMAIL

RE: Defendants' methodologies for technology assisted review ("TAR") - *In re Diisocyanates Antitrust Litigation*, MDL No. 2862

Dear Counsel:

I write to follow up regarding our meet and confer on March 2, 2021 regarding Domestic Defendants' TAR disclosures.¹ During our call we requested that Defendants adopt certain portions of Plaintiffs' proposed TAR methodologies to provide transparency as to the effectiveness of the review. This letter highlights the reasons certain aspects of Defendants' TAR methodologies are insufficient to adequately validate the efficacy of the review—specifically, a proper calculation of recall. We address each of Defendants' proposals below in turn and provide additional information as to why Plaintiffs are requesting that Defendants adopt the validation proposal included in section VII and Appendix A of Plaintiffs February 19, 2021 TAR methodology disclosures.

To begin, we would like to address Defendants' contention during the meet and confer that Plaintiffs' proposal is burdensome and disproportionate to the needs of the case, or that Plaintiffs are expecting perfection in the review. We are not. None of Plaintiffs' validation proposals require Defendants to review a greater number of documents than Defendants propose—rather, they require Defendants to validate that all the different components of their review was sufficiently complete. The Parties seemed to agree that under any validation protocol, review should continue until evidence demonstrates objectively that it should stop. As stated in our letter of February 26, 2021, "70-80% recall is often considered reasonable by courts," and "TAR should conclude when it would be disproportionate to continue and when the number of responsive documents that have been missed is low, provided that the missed documents are neither novel nor important." And, during Tuesday's meet and confer, we indicated that 70% recall is likely a reasonable goal, particularly given search term pre-culling which is likely to reduce recall. We only ask that recall be calculated using valid and robust scientific measurements, as further discussed below.

¹ We understand that Defendants MCNS-U and Mitsui Chemicals America are not planning to use TAR.

I. Richness/Estimation Sample

Defendants (except for Wanhua) have proposed to initiate their review using an estimation/richness sample of a size derived based on a 95% confidence and a 5% margin of error, and in the case of Dow and Covestro, generalized with a standard response distribution of 50%.² Plaintiffs request that a specific number for the richness sample be disclosed, ideally 2400 documents.

Defendants' statistical measure for deriving the richness sample will yield a large margin of error. For example, if the richness of the review population is 5% and the margin of error is plus or minus 5%, that would mean that between 0% and 10% of the documents are estimated to be responsive. Translating that to numbers, that means if the collection is one million documents, and the richness estimate is 50,000 documents, that means there are somewhere between zero and 100,000 responsive documents. That estimate is so imprecise to be almost useless. Defendants intend to use the richness sample later in the review to determine when to stop the review and to estimate recall. So, if they set the recall at 70%, that would mean that the review was done when approximately 35,000 responsive documents are found by the TAR tool. But because the confidence interval ranges from 0 to 100,000, it is possible that there are only 25,000 responsive documents to be found and therefore the entire collection would need to be reviewed and the estimated recall would not be achieved, or, if there were actually 85,000 responsive documents to be found, by stopping the review at 35,000, the recall achieved would be 41% rather than 70%. This is neither an appropriate way to determine when to stop TAR, nor a valid estimate of recall. These concerns can be ameliorated by using the initial richness sample only as a general guidepost, stopping the TAR effort when the newest review sets have only 5-10% richness and none of the documents are novel or important and then doing a proper calculation of recall at the end of the review effort as Plaintiffs have proposed.

We also respond to the concern raised by one of Defendants' counsel during Tuesday's meet and confer, that adopting Plaintiffs' proposal for a set number of documents may result in lower statistical confidence or scientific precision. This is false. A sample of 2,400 cannot possibly give "lower statistical confidence" than a margin of error of 2% with 95% confidence. In fact, it will give a somewhat better estimate than that. A 5% margin of error is simply inadequate as detailed above.

² Plaintiffs also disagree that 95% confidence with a 5% margin of error (i.e., approximately 400 documents in the sample) is "standard industry practice." 95% confidence with a 2% margin of error is often accepted for measuring richness, but in any event, this is a meaningless argument because Defendants' entire process is fundamentally flawed as described herein.

Wanhua has proposed to use a “control set,” presumably for the same purposes as a richness sample, but Wanhua’s disclosures include no objective criteria regarding the size or use of the control set. Please specify how Wanhua intends to calculate recall and what the “desired level of recall” referenced in Wanhua’s TAR methodology is.

II. Stopping Criteria

Plaintiffs raised concerns regarding Defendants’ stopping criteria, in particular that because of the margin of error inherent in Defendants’ proposed richness/estimation samples will yield at best imprecise and at worse useless estimates of (a) when to stop and (b) the presumed recall of the TAR effort. The stopping criteria defined by Dow and Covestro propose to stop the review once “the responsiveness rate of the documents being reviewed meets or falls below the expected prevalence for the entire review population” is fundamentally flawed for the reasons described above. It will either underestimate or overestimate recall of the TAR effort to a large degree. We take this to mean that if the expected prevalence (calculated through the richness sample) of a one million document review is 10%, Covestro and Dow will stop reviewing when 100,000 responsive documents are retrieved. BASF proposes that review should stop when “sufficient recall” is reached. We take this to mean that in a one million document review with a prevalence of 10% and a recall of 75%, review will conclude when 75,000 responsive documents are retrieved. If our assumptions are incorrect, this is not acceptable. Wanhua proposes a similar metric based on recall, but has not described how recall is to be estimated. Huntsman has provided no information on stopping criteria.

To reiterate, the problem with Dow, Covestro, BASF, and presumably Wanhua’s stopping criteria stems from the margin of error of the richness/estimation sample under Defendants’ formulation, the richness sample will be accurate at 95% confidence with a 5% margin of error. That means (95 times out of 100), that if the richness sample estimates 10% prevalence (that 10% of documents in the entire population are responsive), with a review population of one million documents, somewhere between 50,000 and 150,000 documents are likely to be responsive (10% of 1 million = 100,000 +/- 5%, or 50,000 hence 50,000-150,000).³ Using this example, Dow and Covestro propose to stop the TAR effort when 100,000 responsive documents are collected. But, it is entirely possible and within the margin of error that only 50,000 responsive documents exist—and therefore finding 100,000 responsive documents would be impossible even if all one million documents were to be reviewed. Alternatively, if 150,000 responsive documents exist, and the review stops at 100,000, only would only have captured

³ During our meet and confer, the undersigned raised this example and counsel for Defendants suggested that the math was incorrect—that a 5% margin of error meant that in a review population of one million, with estimated prevalence of 10%, between 95,000 and 105,000 documents would be responsive (95 times out of 100). We have confirmed with our experts that the above example is correct because the 5% margin of error *applies to the entire population (of 1 million documents), not the sample (i.e. the number of responsive documents)*.

two-thirds or 67% of the responsive documents would be captured, which is less than what is being suggested. This approach to determining when to stop and how to calculate recall is fundamentally flawed and unacceptable to Plaintiffs.

Additionally, Defendants proposed stopping criteria provides no information on the burden of conducting further review. As we explained during the meet and confer, if the next 10,000 documents in the review queue have a high richness, e.g. 90%, then Defendants stopping criteria would ignore those responsive documents without any regard to proportionality or burden of continuing to review documents where nine out of every ten documents were still responsive. Please let us know your justification for potentially cutting off review when the burden of increasing recall is potentially minimal.

Plaintiffs have proposed a different, and more valid stopping criteria. Namely, review should stop when the last few batches of documents identified by TAR for human review contains no more than five to ten percent responsive documents, and none of the responsive documents is novel and/or more than marginally relevant. This *does not* mean that recall should reach 90-95%; simply that it is no longer proportionate to continue the review when less than five or ten in 100 documents is responsive and those documents are neither novel nor important. This is not only a reasonable metric but it imposes no additional burden. All Plaintiffs' proposal provides is that the review cease once it appears likely that further review is unlikely to yield additional responsive documents with sufficient quantity, quality, or materiality to justify continuing. Please let us know if you are willing to adopt Plaintiffs' proposal, and if not, your reasons for refusing to do so.

We also expect that recall will be calculated based on the entire document population using a valid mathematical method such as that provided in Appendix A to Plaintiffs' TAR disclosures. If Defendants are unwilling to do so, please explain why.

III. Elusion Test

Plaintiffs also have concerns about Defendants' elusion sampling methodology. As an initial matter, elusion only estimates the percent of documents that have been missed. Unlike recall, it says nothing about what percent has been found. If there are one million documents in the collection, and 5% are responsive (i.e., 50,000 documents), if the elusion estimate is 1%, that may sound low, but it means that 10,000 responsive documents (or 20% of them) have been missed.

Other problems with the Defendants' elusion samples stem from the same concerns regarding the richness sample. With Defendants' proposed 95% confidence and 5% margin of error (by which they seem to mean 400 documents), the range in absolute number of responsive documents will be immense, especially since the elusion percent is expected to be far lower than

the richness percent. So, for example, if the elusion is 1% and the margin of error is 5%, Defendants are saying that there are somewhere between -4% (which is meaningless) and +6% responsive documents missed. Translating that to numbers, if the elusion estimate suggests that 1% (or 10,000 documents have been missed), that means that the confidence interval on the elusion estimate is between 0 documents and 60,000 documents. That is a useless estimate. Elusion is simply not an adequate replacement for a proper recall estimate that shows what percent of the responsive documents have been *found*. While the elusion estimate can be compared to the estimated number of documents identified by the richness estimate to give a coarse understanding of the progress of a review effort, it is at best imprecise and when calculated using a margin of error of 5%, meaningless.

During our meet and confer Wanhua's counsel indicated that it would not use an elusion test to validate the review. However, Wanhua's TAR disclosures proposes (at 6(a)-(b)) that it will review a "validation set" of unreviewed documents. This is an elusion test in all but name. Please let us know if this was simply a miscommunication or if Wanhua is no longer planning to apply the "validation" in section 6 of its TAR methodology disclosure.

A simple, and more importantly, valid, method of determining how many documents have been found and how many have been missed is to calculate recall as suggested by Plaintiffs in section VII of their TAR methodology disclosures. Only then will the estimate provide a meaningful mechanism for determining whether the review is adequate. Please let us know why you are unwilling to calculate recall as proposed.

If you do not agree to adopt Plaintiffs' proposal, please let us know: (1) the precise number of documents you propose to conduct the elusion sample on; (2) whether you will disclose the number of responsive documents found in the elusion sample; (3) if you will identify and produce the responsive documents found in the elusion sample; and (4) how you intend to calculate recall. If any Defendants are unwilling to answer these questions, please tell us why.

IV. Validation Procedures and Recall Estimation

Plaintiffs proposed a robust validation protocol that will allow the Parties to accurately estimate recall. During our meet and confer, you asked us to provide exemplary court orders with similar provisions, and we have appended a few to this letter. Plaintiffs' proposal is minimally burdensome – a review sampling of 5000 documents (a figure Plaintiffs are willing to negotiate to avoid motion practice). Aside from the minimal burden, Plaintiffs' validation proposal provides a robust mechanism that will, in part, ensure compliance with Fed. R. Civ. P. 26(g). Similarly robust validation procedures have been ordered regarding TAR, and even well before TAR was used. *See e.g. In re Seroquel Prod. Liab. Litig.*, 244 F.R.D. 650, 662 (M.D. Fla. 2007) ("Common sense dictates that sampling and other quality assurance techniques must be employed to meet requirements of completeness."); *In re Mercedes-Benz Emissions Litigation*,

No. 2:16-CV-881, 2020 WL 103975, at *2 (D.N.J. Jan. 9, 2020) (“The parties agree and case law dictates that appropriate validation be utilized to test search results.”). Methodologies like Plaintiffs’ proposal to sample and validate the review population have been approved of and ordered by Courts. Protocol Regarding Validation of Technology-Assisted Review (“TAR”), *In re: Valsartan, Losartan, and Irbesartan Prods. Liab. Litig.*, No. 1:19-md-2875, ECF 695 (N.J. Dec. 23, 2020); Order Regarding Search Methodology for Electronically Stored Information, *In re: Broiler Chicken Antitrust Litig.*, No. 1:16-cv-8637 (N.D. Ill. Jan. 3, 2018).

Defendants also suggested during our meet and confer that Plaintiffs have no right to the type of validation protocols or transparency regarding the information we are requesting.⁴ Defendants are no doubt cognizant of their obligations pursuant to Federal Rule of Civil Procedure 26(g) to certify that their disclosures under Rule 26(1) are “complete and correct,” which the Advisory Committee notes includes “mak[ing] a reasonable effort to assure that the client had provided all the information and documents available to him that a responsive to the discovery demand.” Courts have interpreted this requirement as requiring validation and quality assurance. *See e.g. City of Rockford v. Mallinckrodt ARD Inc.*, 326 F.R.D. 489 (N.D. Ill. 2018); *see also* Maura R. Grossman & Gordon V. Cormack, Comments on “The Implications of Rule 26(g) on the Use of Technology-Assisted Review”, 7 Fed. Cts. L. Rev. 285, 302 (2014). Given the deficiencies in Defendants’ proposed validation protocols identified above, and refusal to implement Plaintiffs validation proposal at this juncture, we ask: how are Defendants themselves intending to ensure the completeness of the review in compliance with their Fed. R. Civ. P. 26(g) obligations?

V. Search Terms

We again raise a number of search-term related matters that have been communicated and discussed previously.

A. Pre-culling of search terms

Plaintiffs reiterate their prior arguments that further pre-culling through narrowed search terms are inappropriate, and reiterate our request for the following: (a) provide a counter-proposal of search terms, i.e., specifically identify the modifications necessary to the present list

⁴ We also clarified during the meet and confer that at this time we are *not* requesting Defendants agree to produce non-responsive documents, even though similar transparency has been required in other cases. Plaintiffs only ask that Defendants produce responsive, non-privileged documents, and the results (that is, accounting) of validation procedures.

of search terms and why they are needed; (b) provide hit counts for the proposed revised search-term list; (c) test a sample of the documents Defendants propose to eliminate through the use of narrower search terms (i.e. the population of documents that hit on Plaintiffs' preliminary list of proposed terms but not Defendants' revised terms) and provide Plaintiffs with the recall of this sample, as well as copies of responsive documents that were missed by the use of the narrower set of search terms.

B. DOJ Search Terms

Defendants have not responded to three prior requests⁵ to provide the search terms used in the DOJ productions. Please let us know if you will provide those terms. If not, please explain your basis for withholding them.

C. Identification of Additional Search Terms

Plaintiffs asked Defendants⁶ to propose additional search terms that are not captured by Plaintiffs' preliminary proposal, and to conduct a reasonable inquiry with each Defendant to determine which search terms may have been missed. If you are refusing to conduct this inquiry, please provide your basis for not doing so.⁷

As with your present refusal to adopt Plaintiffs' proposed validation protocol, we also ask how Defendants will know whether they have conducted a reasonable investigation, in compliance with their Fed. R. Civ. P. 26(g) obligations, if they do not employ any sampling and validation or inquire with your clients about additional search terms?

VI. Additional Matters

Plaintiffs' February 26, 2021 letter requested information about a number of other topics related to Defendants' TAR protocols. Please provide us with a response to these questions:

1. Will Defendants create an independent, manual review process for documents not suited to TAR such as photographs, audio files, certain spreadsheets, and the like?

⁵ Plaintiffs raised this request during the February 9, 2021 meet and confer, in an email of February 15, 2021, and in a letter of February 26, 2021. No Defendant has responded to this request.

⁶ Plaintiffs requested Defendants propose their own search terms in letters sent to each Defendant during September and October of 2020 when Plaintiffs provided an initial list of search terms. Plaintiffs raised this request again in letters of January 24, 2021, February 8, and February 26, 2021.

⁷ In a recent letter, counsel for Dow asked (for the first time) if Plaintiffs are also undertaking this process. We have already done so and continue to follow up. We will let you know if our clients have any recommendations for additional search terms.



- Relatedly, will Defendants apply TAR to text messages, or review them independently?
2. Will Defendants disclose the types of “junk” files removed from the review population?
 3. Will Defendants allow Plaintiffs to provide documents that will be used as training samples?
 4. Will Defendants commit to collecting certain categories of documents responsive to Plaintiffs’ RFPS and not conducive to search terms or TAR? Likewise, will Defendants produce known responsive documents (i.e. those documents known to Defendants or their Counsel to be responsive, regardless of the method of identification)?

We look forward to your responses.

Very truly yours,

/s/ Sarah R. LaFreniere

Sarah R. LaFreniere

cc: Megan E. Jones
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